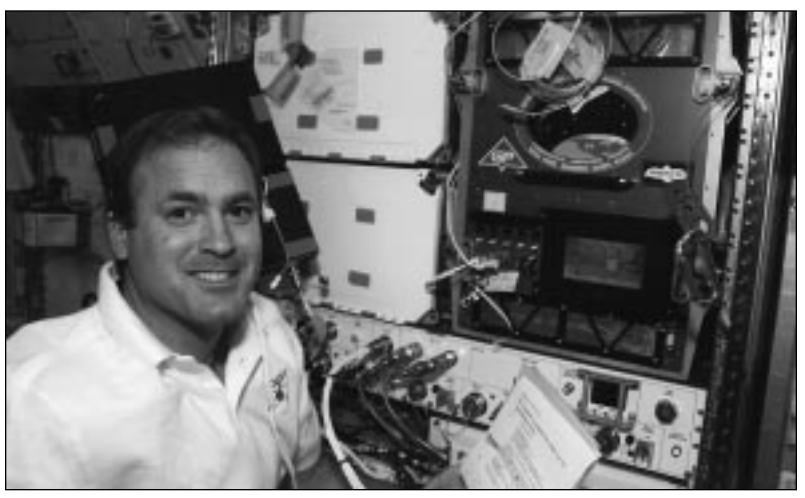
Superior Science

The STS-94 crew spends 16 days in space exceeding scientists' expectations

JSC Photo STS094-372-008

↑ Most of the STS-94 crew performs operations in the Spacelab Science Module. Payload Specialist Greg Linteris, right foreground, looks over fight plan data as Mission Specialist Don Thomas, upper right, works nearby. Mission Specialist Mike Gernhardt, nearer camera on left, and Payload Specialist Roger Couch share an Inflight Maintenance chore while Payload Commander Janice Voss oversees the work. These tasks are necessary to repair or troubleshoot a minor malfunction with an experiment. Procedures are often time consuming and would detract from scheduled science gathering so the entire crew pitches in to keep the experiments and activities on a tight timeline for maximum science acquisition.



JSC Photo S94E5021

↑ STS-94 Commander Jim Halsell checks on an experiment in the Astro-Planet Generic Bioprocessing Apparatus during the 16-day mission. A plant growth experiment in the Astro-Planet Generic Bioprocessing Apparatus examined the production of lignin—essential for the formation and joining of woody cell walls in plants; the production of secondary metabolites—essential to generating energy needed to sustain vital life processes.

JSC Photo S94E5009

↑ Astronaut Mike Gernhardt works on *Columbia*'s flight deck during Flight Day 6 activities. During the 16-day mission the seven-member crew worked in two shifts so science work could be performed around the clock. Gernhardt was a member of the blue team with Voss and Crouch, while Halsell, Still, Thomas and Linteris made up the red team.

JSC Photo STS094-344-027

↑Astronaut Don Thomas records his observations of an experiment in the middeck glovebox. A camera inside the glovebox gave scientists a number of different viewing angles when the images were downlinked.

JSC Photo STS094-388-036

↑Payload Commander Janice Voss works at the Combustion Module experiment. Using a video monitor, Voss observes a flame during one the many burns in this facility.

Halsell uses a camcorder to videotape the Hand Held Diffusion Test Cells. Each test cell has three chambers containing a protein solution, a buffer solution and a precipitant solution chamber.→

JSC Photo STS094-365-012

← Astronaut Mike Gernhardt performs an observation at the Expedite Processing of Experiments to Space Station, or EXPRESS, rack. The EXPRESS rack accommodates experiments compatible with the shuttle's mid-deck.

JSC Photo STS094-389-022

Payload Specialist Roger Crouch prepares to run one of the many experiments requiring use of the glovebox. The glovebox is designed to allow for specimen manipulation in an environment that will protect the science module from any spillage or contamination. →

JSC Photo STS094-335-026

← Payload Specialist Greg Linteris performs operations at the Droplet Combustion Experiment. The Droplet Combustion Experiment examines combustion of fuel droplets.

JSC Photo STS094-362-009

← The traditional in-flight crew portrait features top row from left, Mission Specialist Don Thomas and Payload Specialist Roger Crouch; middle row from left Mission Specialist Mike Gernhardt, Commander Jim Halsell and Payload Specialist Greg Linteris; bottom row from left Pilot Susan Still and Payload Commander Janice Voss. As *Columbia* glided to a smooth landing at 5:47 a.m. CDT July 17 on Kennedy Space Center's Shuttle Landing Facility, scientists around the world were tallying up the wealth of information the crew collected during the 16-day flight. Halsell eased *Columbia* onto the runway to end the STS-94 mission after 15 days, 16 hours and 44 minutes.

JSC Photo STS094-307-001